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ABSTRACT

A study was conducted to identify the skills which are performed and essential for success in seven animal production and management (small animal care) occupations: animal health assistant, laboratory animal assistant, kennel worker, dog groomer, pet shop worker, stable worker, and zoo keeper. Specific objectives were (1) to develop and validate an initial task inventory, (2) to identify the specific tasks performed by workers, and (3) to determine the relative importance of the specific tasks to successful employment. An initial task inventory was constructed and validated. A sample of workers in the seven occupations was selected and data was collected from them and analyzed. The product is a list of 637 tasks, (grouped under 48 duty areas), each with a level of importance rating for each of the seven occupations. The report contains description of the methodology, data tables describing characteristics of the sample of 54 workers, the 37-page task list with importance ratings for each of the seven occupations, and a list of conclusions and recommendations for further research. (HD)

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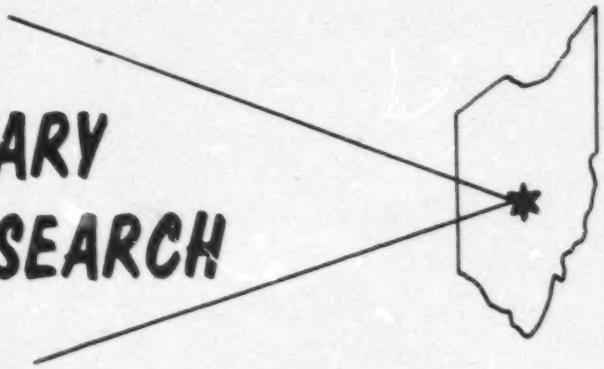
SUMMARY OF RESEARCH



DEPARTMENT OF AGRICULTURAL EDUCATION

The Ohio State University
Columbus, Ohio 43210

TASKS ESSENTIAL TO SUCCESSFUL PERFORMANCE WITHIN ANIMAL PRODUCTION AND MANAGEMENT OCCUPATIONS IN OHIO

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by

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INTRODUCTION

Animal production and management, also known as Small Animal Care, is a rapidly expanding field involving many occupations. Seven occupations included in the trend are animal health assistant, laboratory animal assistant, kennel worker, dog groomer, pet shop worker, stable worker, and zoo keeper. The demand for competent personnel in these occupations is also increasing and must be met. However, specific responsibilities for each of these occupations have not been well defined. A more specific delineation of tasks essential for successful performance was needed to assist educational institutions in Ohio desiring to develop training programs to prepare workers who might qualify for employment.

PURPOSE AND OBJECTIVES

The major purpose of this study was to identify the skills which are performed and essential for success in animal production and management. The specific objectives of this survey were as follows:

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1. Develop and validate an initial task inventory for the animal production and management occupations.

2. Identify the specific tasks performed by workers in animal production and management occupations.

3. Determine the relative importance of the specific tasks to successful employment in animal production and management occupations.

DEFINITION OF TERMS

Animal Production and Management Taxonomy

Comprises the occupations which are concerned with the production and management of animals utilized for recreational, educational, and experimental purposes. Individuals involved in this taxonomy are involved in many animal related occupations except those producing animals for consumption.

Duty Area

A large segment of work performed by an individual composed of two or more related tasks. It is one of the distinct major activities involved in the work performed by the individual. Some examples of duty areas of work for the animal production and management taxonomy are:

1. Performing general office work

2. Handling and caring for animals

3. Feeding animals

Occupation

The work, by job title, in which an individual is employed.

Task

A discrete unit of work performed by an individual. The unit of work generally has a definite beginning and ending, and is performed within a limited period of time. Some examples of tasks in animal production and management are:

1. Use telephone

2. Form temporary muzzle

3. Add medication to feeds

Task Level of Importance

The relative importance of a task to the overall success on the job.

METHODOLOGY

Objectives were accomplished by constructing an initial task inventory, validating the initial inventory, selecting a sample of workers, collecting data, and analyzing data.

INITIAL TASK INVENTORY

Duty areas and task statements for occupations in animal production and management were identified by searching existing task lists, job descriptions, curriculum guides, and reference publications. Additionally, discussions with instructors of animal production and management at both the secondary vocational school and the post-secondary technical school level assisted in clarifying the specific responsibilities in these occupations. All the tasks were assembled into one composite list.

INITIAL INVENTORY VALIDATION

The initial task inventory was reviewed by instructors of animal production and management programs in conjunction with their respective advisory committees. The advisory committees consisted of individuals trained and working in animal production and management.

After securing input from these groups, extensive revisions were made in the initial list and the format of the questionnaire. The initial inventory was revised so that incumbents could review each task to determine:

1. If the task was performed in that particular occupation.

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2. If the task performed was essential, useful, or not important to the designated occupation.

3. Whether or not an individual performed a task, he or she was to rate the importance of the task to successful performance in the occupation.

SAMPLE SELECTION

The source of the sample for the animal health assistant occupation consisted of one hundred veterinarians which were randomly selected from a state directory of veterinarians supplied through the cooperation of the Ohio Veterinarian Medical Association. It was not possible to obtain a list of the population of personnel in the animal health assistant occupation. The sample of incumbents was those persons who worked for one of the randomly selected veterinarians.

An accessible sample of the 108 incumbent workers was identified for the remaining animal production and management occupations by teachers of vocational agriculture enrolled in a summer workshop at The Ohio State University. The 108 incumbents were distributed in the six occupations as follows: stable workers, 26; kennel workers, 16; dog groomers, 20; pet shop workers, 16; laboratory animal assistants, 12; and zoo keepers, 18. The breakdown of the animal production and management occupations is presented in Table I.

DATA COLLECTION

For the animal health assistant the survey was mailed on December 26, 1974. Instructions were provided with the survey instrument requesting that the instrument be completed by a responsible person within the occupation. On January 15, 1975 a follow-up instrument was mailed to all veterinarians who had not yet replied, and a survey return deadline was set for January 31, 1975. No surveys were accepted beyond this deadline.

For the zoo keeper occupation packets of questionnaires were mailed to seven zoos in Ohio. Instructions were provided with the survey instrument requesting that the instrument be completed by a responsible person within the zoo. A total of 18 workers were sampled.

Incumbents in the laboratory animal assistant occupation were selected from the Central Ohio area by a teacher of vocational agriculture. Individuals in the occupation were administered a questionnaire by mail.

TABLE I

Worker Response to the Survey by Occupation

	Animal Health Assistant		Stable Worker		Kennel Worker		Dog Groomer		Pet Shop Worker		Laboratory Animal Assistant		Zoo Keeper	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Workers in Survey	100	100.0	26	100.0	16	100.0	20	100.0	16	100.0	12	100.0	18	100.0
Respondents	54	54.0	26	100.0	16	100.0	20	100.0	16	100.0	12	100.0	18	100.0
Usable	44	44.0	26	100.0	12	70.6	20	100.0	16	100.0	11	92.0	16	89.0
Unusable	10	10.0	0	0	4	29.4	0	0	0	0	1	8.0	2	11.0
Non Respondents	46	46.0	0	0	0	0	0	0	0	0	0	0	0	0

Twelve laboratory animal assistants were included in the sample.

Instruments were administered to incumbents in the stable worker, dog groomer, pet shop worker, and kennel worker occupation via personal interview. A total of 78 individuals were interviewed and administered questionnaires.

All data except for the laboratory animal assistant occupation was collected prior to the summer workshop held June 17, 1975.

DATA ANALYSIS

For the animal health assistant occupation information from the usable questionnaires was coded for key punching. Each specific task statement was coded as to whether it was performed (1 = task performed by respondent; 0 = task not performed by the respondent) and the level of importance of the task (3 = essential; 2 = useful; 1 = not important). The information was key punched on IBM cards and verified by personnel at the Instruction and Research Computer Center at The Ohio State University. Computer analysis resulted in the computation of frequencies and means for each task statement. The results of a computer analysis were printed in tabular form for ease of interpretation.

The remaining six occupations were hand calculated using the same rating system described previously. The frequencies and means for each task statement were calculated and listed in tabular form for ease of interpretation.

FINDINGS

The objectives of the study resulted in the compilation of basic sample background information and the identification of a common core of tasks considered useful and essential to all animal production and management occupations. Tasks were also identified that were considered essential and useful to specific occupations in animal production and management that were surveyed. These occupations included: animal health assistant, laboratory animal assistant, kennel worker, dog groomer, pet shop worker, stable worker, and zoo keeper.

DESCRIPTION OF THE SAMPLE

Information regarding the importance of tasks for successful employment within the animal production and management taxonomy was obtained from seven occupations within the taxonomy.

Response to the Survey

For the animal health assistant occupation 100 questionnaires were mailed and 54 replies were received. This represents a 54% rate of return. The usable rate of return was 44%, or 44 returns. The findings of this survey are based on the responses of the 54 individuals who chose to participate in the study. The response to the questionnaire by occupation is summarized in Table I.

Total Work Experience in the Occupation

Incumbent workers with varying amounts of total work experience in their occupation were included in the study. Table II summarizes the response to the question, "How many years have you worked in the occupation in total?" This information was obtained for the seven occupations in animal production and management. An examination of Table II indicates that as a group, laboratory animal assistants, had the greatest average amount of work experience in their occupation; whereas, pet shop workers as a group had the least average amount of total work experience. The incumbent workers in seven occupational areas for which information was available had an average of 6.2 years of total work experience in their occupations.

Employment at Current Job

Incumbent workers with varying amounts of work experience at their current jobs were included in the study. Table III summarizes the responses to the question, "How many years have you worked at your current job?" The information was obtained for all workers in all occupational areas except stable worker and dog groomer. An examination of Table III indicates that as a group, laboratory animal assistants had the greatest average amount of work experience in their current occupation; whereas, kennel workers as a group had the least average amount of work experience in their current occupation. The incumbent workers in the occupations who responded indicated that they had been employed in their current occupations an average of 5.2 years.

Preparation for the Occupation

Incumbent workers obtained training for their jobs from various sources. Table IV summarizes their responses to the question, "Where did you receive preparation for your occupation?" More than one response

TABLE II

Total Amount of Work Experience in Occupation

Occupation	N	Mean Years of Total Work Experience
Animal Health Assistant	44	7.6
Stable Worker	22	5.4
Kennel Worker	7	4.9
Dog Groomer	20	6.4
Pet Shop Worker	16	3.7
Laboratory Animal Assistant	10	7.9
Zoo Keeper	16	7.5
Mean years of work experience in the occupation =		6.2

TABLE III

Years Employment At Current Job

Occupation	N	Mean Years at Current Job
Animal Health Assistant	44	6.5
Stable Worker	NA	
Kennel Worker	7	2.8
Dog Groomer	NA	
Pet Shop Worker	16	3.0
Laboratory Animal Assistant	10	7.9
Zoo Keeper	16	5.7
Mean years at present Job =		5.2

TABLE IV

Source of Training Received in Animal Production and Management

Source	Animal Health Assistant		Stable Worker		Kennel Worker		Dog Groomer		Pet Shop Worker		Laboratory Animal Assistant		Zoo Keeper		Cumulative for all occupations	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
On-the-job	41	93.2	26	100.0	8	66.6	13	65.0	16	100.0	11	100.0	16	100.0	131	90.3
High School Program	4	9.1	2	7.0	5	41.6	4	20.0	1	6.3	0	0	1	6.3	17	11.7
Technical School Program	6	13.6	1	3.7	0	0	0	0	0	0	2	18.2	0	0	9	6.2
University Program	0	0	4	7.1	0	0	0	0	0	0	0	0	2	12.5	6	4.1
Adult Ed. Program	0	0	1	3.7	1	8.3	0	0	0	0	4	22.2	1	6.3	7	4.8
Military	0	0	0	0	0	0	0	0	0	0	2	18.2	1	6.3	3	2.1
Other	2	4.5	3	11.5	0	0	3	15.0	3	18.8	2	18.2	2	12.5	15	10.3

could be selected by the respondents. The most frequent source of occupational preparation was on-the-job training. The second most frequent source of preparation was a high school training program. The third most frequent source of preparation was designated as other sources of preparation.

Task Performed by Workers

The 637 tasks were grouped under 48 duty areas. Each respondent checked whether each task was performed in his occupation. A level of importance rating was also obtained for each task. The respondent could rate the task as essential, useful, or not important for successful performance in an occupation. A ranking of essential was assigned a numerical rating of 3, useful a numerical rating of 2, and not important a numerical rating of 1

A level of importance rating was determined for each of the 637 tasks by calculating the mean level of importance from the incumbents who rated that task.

Tasks Essential for Successful Performance in Animal Production and Management

Those tasks receiving a rating of 2.3 or higher were considered as essential for successful performance in the specific occupations. The 2.3 level was established by a state and national curriculum advisory committee of vocational educators after examining the data. Tasks considered as essential in most animal production and management occupations were designated as common core tasks. The criterion for selecting a task for the common core of a taxonomy was as follows: the task must have been rated as 2.3 or higher in three of the seven occupations in the animal production and management taxonomy. Tasks with a rating of 2.3 or higher are summarized in Table V.

TABLE V

Animal Production and Management

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Performing General Office Work							
Admit and dismiss patients	2.8		3.0	2.9			
Determine purpose of visits	2.6		2.8	2.9	2.7		
File office forms and records	2.8	2.7	2.8	2.4	2.8		
File X-rays	2.4						
Greet clients and customers	2.9	2.9	3.0	2.8	3.0		2.4
Notify clients of appointments	2.3			2.3			
Operate office equipment	2.7			2.3	2.5		
Schedule appointments	2.7		2.7	2.8	2.3		
Use telephone	2.9	2.8	3.0	2.8	2.9		2.6
Wear appropriate dress for office work	2.8		2.5		3.0		2.7
Write memos, notes, and letters	2.6	2.7	2.9		2.8		2.3
Manage bad checks					2.4		
Maintain personal grooming							2.7
Conduct tours							2.3
Work with students from high school and colleges							2.3
Answer questions about zoo animals							2.5
Interpreting Medical Terminology							
Identify circulatory system and function						2.4	
Identify digestive system and function						2.3	

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Interpreting Medical Terminology (cont.)							
Identify general anatomy and physiology terms						3.0	
Identify integumentory system and functions						2.5	
Identify major disease terminology						2.4	
Identify reproductive system and function						2.4	
Identify respiratory system and function						2.5	
Identify urinary system and function						2.4	
Recording Information							
Balance daily cash statement	2.3		2.3		2.8		
Prepare monthly bank statement					2.8		
Deposit daily receipts			2.2		2.8		
Maintain account records and payments	2.4		2.2		2.6		
Receive payment	2.9		2.3		2.6		2.6
Record bowel movement	2.8		2.3			2.4	
Record water information						2.5	
Record feeding information	2.8		2.3		3.4	2.5	2.9
Record client information	2.8		2.7	2.7	2.3		
Record patient information	2.8		2.5	2.8	2.4	2.6	
Record medication information	2.5	2.8	2.7	2.3	3.0	2.8	2.7
Record pedigree record		2.9	2.2				

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Recording Information (cont.)							
Record surgery information	2.4				2.2	2.6	2.7
Record vaccination information	2.8		2.5		2.5	2.5	2.7
Record weight information	2.2		2.4		2.5	3.0	2.7
Write checks					2.7		
Record account data					2.6		
Maintain personal work hours chart					2.9		
Maintain animal loss record					2.8		
Maintain animal transfer record					2.7		
Record personal accidents					3.0		
Handle pilferage and inventory		2.5					
Record horse production information		2.3					
Record breeding and delivery dates		2.9				2.4	2.8
Note special events, etc.		2.7					
Observe animals in assigned areas							3.0
Record health problems requiring vet							2.6
Record heat cycle for breeding stock						2.4	2.7
Report needed building repairs							3.0
Handling and Caring for Animals							
Assist animals in delivering young			2.4				

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Handling and Caring for Animals (cont.)							
Assist animals in nursing			2.4			2.8	
Check if animals are pregnant			2.3		2.3	2.3	2.8
Collect bowel movements	2.7		2.5				2.4
Control animals when handling	2.9		2.5	3.0	2.7		2.8
Estimate weight of animals			2.5		2.3	2.5	2.5
Evaluate condition of animals				2.4	2.8	3.0	2.9
Exercise animals	2.7		2.5		2.6		2.5
Identify animal heat signs	2.6		2.5	2.5	2.3	2.4	2.5
Identify animals	2.7		2.5	2.6		2.7	3.0
Identify breeding method			2.5		2.4		2.8
Observe animals regularly for problems			2.8		2.9	2.9	2.8
Place animals in pens	2.7		2.8	2.5	2.7	2.8	
Induce bowel movements	2.8		2.6			2.4	
Provide proper environment for bred animals			2.6		2.5	2.5	2.8
Regulate air movement and temperature in holding areas			2.6	2.9		2.7	2.8
Separate non-compatible animals			2.6	2.7	2.8	2.5	3.0
Take pulse and temperature	2.0		2.3			2.7	
Place animal on grooming table				2.9			3.0
Identify husbandry practices of parakeet varieties					2.6		

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Handling and Caring for Animals (cont.)							
Identify husbandry practices of love-birds and cockateels					2.6		
Identify husbandry practices of parrots and macaws					2.5		
Identify husbandry practices of rodents					2.5		
Tag animals					2.6	2.8	
Implement and maintain sanitory pro-cedures					3.0		
Isolate pregnant animals					2.4		
Maintain sanitary environment for young					2.8		
Play with animals					2.6		
Assist in quarantine procedures						2.5	
Sex an animal						2.7	
Weigh an animal						2.5	
Cool animals with hose							2.7
Collect urine sample							2.4
Assist with artificial insemination							2.5
Assist cats to urinate and defecate							2.8
Bathe and change diapers on apes							2.8
De-cap snake eyes							2.8
Feeding Animals							
Add medication to feeds	2.4		2.7		2.7	2.5	2.9

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Feeding Animals (cont.)							
Determine amount of feed required by animals	2.6		2.6		2.8	2.5	2.9
Determine nutritional requirements of animals			2.4		2.6	2.5	2.8
Determine how often animals should be fed			2.5		2.7	2.5	2.9
Determine when to feed			2.8		2.8	2.6	2.9
Determine which feeds may be fed animals			2.5		2.8	2.7	2.7
Identify components of feed					2.3		2.4
Identify information on feed label			2.5		2.5	2.4	2.5
Interpret nutritional feed charts			2.6				
Place feed in containers	2.5		2.9		2.8	2.6	2.8
Prepare feed	2.8		3.0	2.4	2.8	2.7	
Provide water for animals	2.9		3.0	2.4	3.0	3.0	
Feed pre-/post shipment diet					2.6		
Identify common storage procedures					3.0		3.0
Determine common nutritional principles					2.6		
Feed orphans							2.8
Receive shipments of feed, hay, etc.							2.6
Grooming Animals							
Bathe animals	2.5		2.5	3.0			2.5
Clean ears			2.5	3.0			2.3

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Grooming Animals (cont.)							
Clean teeth	2.4						2.3
Clip nails	2.5		2.4	3.0	2.3		2.4
Comb animals	2.5		2.4	3.0	2.3		
Drain anal sacs				2.4			
Dry washed animals with towels and dryer	2.3		2.4	3.0	2.3		
Identify clipping problems				2.7			
Identify water and shampoo differences				2.7	2.5		
Perform various scissoring patterns				2.3			
Perform various clipping patterns				3.0			
Perfume animals				2.9	2.3		
Pluck hair				2.8	2.4		
Perform post clipping procedures				2.8			
Perform various stripping patterns				2.6			
Condition skin (elephant)							2.4
Clip bird claws, beaks, wings							2.7
Performing Examining Room Work							
Apply bandages			2.4				
Assist in diagnosing infectious and non-infectious diseases			2.6				

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Performing Examining Room Work (cont.)							
Assist in treating disease	2.3		2.6		2.5		
Assist the manager in determining control procedures			2.4		3.0		
Change bandages			2.8				
Disinfect examining table and equipment	2.6						
Identify external parasites	2.6		2.3				
Place and restrain animal on examining table	2.8				2.6		
Preparing examination room area	2.9				2.5		
Use appropriate disinfectants	2.8		2.8		2.8		
Use proper taping techniques					2.4		
Performing Laboratory Test							
Analyze fecal samples	2.6						
Chemically examine urine	2.3					2.6	
Collect urine sample	2.3					2.6	
Identify parasites and eggs	2.5				2.6		
Measure solids and liquids			2.6		2.3	2.5	
Operate centrifuge	2.3						
Perform flotation method	2.7						

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Performing Laboratory Test (cont.)							
Set up and adjust microscope	2.3						
Convert English measure to metric measurement						2.6	
Take blood samples						2.5	
Dispensing Medicine and Supplies							
Destroy empty containers and drug administration devices			2.9		2.7	2.3	
Interpret prescription request			2.7			2.8	
Interpret product labels			2.7		2.6	2.7	
Label drug containers	2.3		2.7		2.6	2.7	
Maintain orderly storage shelves	2.6		2.6			2.7	
Measure exact amounts for prescriptions	2.3					2.8	
Prepare animal drug forms						2.4	
Store products in appropriate area	2.[illegible]		2.9		2.5	2.7	
Transfer products to proper containers	2.2		2.8		2.5	2.4	
Administering Medication							
Administer IM injections under supervision	2.3					2.8	
Administer IV injection under supervision	2.2					2.8	
Administer oral medication under supervision	2.5		2.4			2.8	

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Administering Medication (cont.)							
Administer rectal medication under supervision						2.5	
Administer subcutaneous injection under supervision	2.4					2.6	
Administer surface medication under supervision	2.5		2.3			2.8	
Fill syringe	2.4					2.8	
Interpret veterinarian medication prescription			2.2			2.5	
Identify and select animal's proper medication						2.5	
Locate injection points on animals under supervision						2.5	
Select proper needle						2.6	
Sterilize injection equipment	2.6					2.7	
Restraining Animals							
Apply various muzzles	2.5		2.5	2.3			
Form temporary muzzles	2.5		2.5	2.3		2.3	
Identify animal moods	2.3		2.7	2.8		2.7	
Open mouth	2.4		2.7	2.8		2.5	
Properly approach animal	2.8		3.2	3.0		2.9	2.7
Restrain animal's head	2.9		2.5	2.9		2.9	
Tie animal to table	2.4					2.7	
Catch and restrain monkeys							2.9
Net birds							2.7

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Restraining Animals (cont.)							
Use lasso							2.4
Use come-a-long							2.4
Hand restrain large animals							2.6
Use squeeze cage							2.5
Use snake hood and fork							2.7
Operate restraining mechanisms						2.7	
Tape legs						2.5	
Assisting With X-Rays							
Adjust cassette holder	2.4						
Adjust settings			2.5				
Identify film development problems			2.5				
Clean processing tanks			2.7				
Develop film	2.5		2.5				
Fix film	2.4		3.0				
Identify developing chemicals			2.5				
Identify normal X-ray positions	2.3						
Maintain water and solution temperature	2.3						
Measure part of the animal to be examined	2.3					2.3	

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Assisting With X-rays (cont.)							
Mix and replace developing solution	2.3						
Position animal for X-rays	2.4						
Remove film from cassette	2.4						
Store X-rays	2.5						
Use appropriate aprons and gloves	2.7						
Use proper film	2.3						
Using and Maintaining Small Animal Care Equipment							
Check equipment for defects	2.5		3.0	2.8		3.0	2.9
Clean and disinfect instruments and equipment	2.9		2.8	2.9		3.0	
Identify and use nail files				2.4		2.5	
Identify and use rake				2.4		2.3	
Identify and use thinning shears				2.9			
Identify and use dental equipment	2.8						
Identify and use various scissors				3.0			
Identify and use clipper head				3.0			
Identify and use combs				2.9			
Identify and use brushes				2.8			
Identify and use nail clippers				2.6			
Use and maintain clippers				2.7			

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Using and Maintaining Small Animal Care Equipment (cont.)							
Use vacuum sweeper				2.3			
Use mat splitter				2.3			
Use hair dryer				2.8			
Interpret equipment operation instructions				2.7		2.6	
Select appropriate equipment	2.5			2.3		2.9	2.9
Sterilize instruments and equipment	2.9					2.9	
Store instruments and equipment	2.8		2.7	2.6		2.6	2.6
Repair defects							2.3
Identify anesthesiology equipment	2.7						
Identify bandage and stitch scissors	2.4						
Identify canine tonsil snares	2.4						
Identify cauterizing equipment	2.6						
Identify fracture equipment	2.7						
Identify post-mortem equipment	2.3						
Identify scissor tips	2.4					2.4	
Identify surgical blades and scalpels	2.6						
Identify transfusion equipment	2.4					2.3	
Identify catheters	2.7					2.5	
Identify various forceps	2.6					2.5	
Identify various hemostats	2.5					2.5	

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Using and Maintaining Small Animal Care Equipment (cont.)							
Identify various injection equipment	2.5					2.6	
Identify various suture needles	2.7						
Identify various syringes	2.6					2.3	
Use tranquilizer gun							2.4
Use ball gun							2.3
Backwash filters in aquariums							3.0
Change filter in aquarium							2.8
Receive consumables and tools from the commissary							2.7
Maintain air cleaner						2.3	
Use and maintain various scales and balances						2.5	
Show Animals							
Register			3.0				
Assist in show			3.0				
Preparing Facilities and Equipment for Surgery							
Clean surgical equipment	2.8					2.6	
Lay out surgical equipment	2.8						
Perform scrubbing technique	2.7					2.3	
Prepare standard and special surgical packs	2.6						

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Preparing Facilities and Equipment for Surgery (cont.)							
Prepare sterile bundles and germicide basins	2.5						
Prepare sterile gowns, caps, and masks	2.5					2.7	
Preparing Animals for Surgery							
Assist in anesthesizing animals	2.6					2.9	
Clip animal hair	2.8					2.5	
Drape and position animal	2.6					2.8	
Shave animal	2.7					2.5	
Wash animal	2.5						
Wash operative area on animals	2.9						
Performing Emergency First-Aid							
Administer artificial respiration	2.4					2.6	
Administer oxygen	2.4					2.6	
Apply antiseptic	2.5		2.2	2.6		2.6	2.8
Apply minor medication	2.4		2.5	2.6		2.6	2.8
Cleanse wounds	2.5		2.5	2.5		2.7	
Identify internal hemorrhaging symptoms			2.3			2.7	2.7
Identify shock symptoms	2.4		2.6			2.7	2.5
Identify various external bleeding	2.4		2.5			2.8	2.8

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Performing Emergency First-Aid (cont.)							
Isolate abnormal animals			2.3		3.0		
Maintain body temperatures			2.3	2.3		2.6	
Prepare and transport emergency victims			2.3			2.5	
Prepare patient for transfusion	2.5					2.4	
Stop external bleeding	2.5					2.8	
Isolate suspected rabid animals						2.7	
Inventorying Products							
Order supplies	2.6		2.6	2.4	2.7	2.8	2.8
Remove contaminated items	2.3		2.4		2.5	2.8	2.9
Remove expired products	2.3		2.5			3.0	
Take physical inventory	2.3		2.5	2.3	2.7	2.8	2.5
Use stocking forms			2.3			2.8	2.3
Verbally report daily needs to warehouse							2.6
Selling and Marketing Products							
Complete sales slip			2.6		2.3		
Demonstrate items for sale			2.5		2.9		
Determine whether product requested is on hand			2.5		2.3		

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Selling and Marketing Products (cont.)							
Handle customer inquiries and complaints			2.6	2.3	2.3		
Make change	2.4		2.9	2.3	2.3		
Meet customers	2.5		2.3	2.3			
Operate cash register					2.3		
Arrange displays			2.3				
Price products			2.4		2.3		
Stock shelves			2.5				
Initiate sales					2.8		
Prepare newspaper, newsletter, and other written public advertisement					2.6		
Following Legal Regulations							
Determine what duties may be performed			2.6	2.5	2.6	2.5	2.6
Determine which materials may be sold without prescription			2.4		2.7		
Demonstrate knowledge of state laws					2.7		
Demonstrate knowledge of local laws					2.7		
Demonstrate knowledge of animal health care regulations					2.6		
Demonstate knowledge of laws regulating pet supply companies					2.6		

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Following Legal Regulations (cont.)							
Understand the legal rights and privileges of personnel					2.6		
Be aware of agencies available for legal assistance					2.6		
Be aware of federal, state, and local lobby organizations					2.6		
Determine what duties are allowed by Union rules							2.6
Determine what restrictions are placed on keepers by zoo staff							2.8
Maintaining Facilities							
Clean feeder	2.7		3.0		3.0	2.9	3.0
Clean holding pens, cages, and runs	2.9		3.0	2.6		2.9	
Clean waiting and grooming rooms	2.9		3.0	2.9		2.7	
Clean and disinfect pens	2.6		3.0	2.6		2.8	2.9
Dispose of residue and trash	2.9		3.0	3.0		2.8	
Control ventilation				2.5			
Lay out grooming equipment				2.4			
Clean sinks and bathing areas				3.0			
Properly maintain trash and residue storage containers							2.8
Maintain automatic watering system						2.6	2.9
Maintain amps, minor repair, replace fuses							2.5

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Maintaining Facilities (cont.)							
Flush cages (animal enclosed)							2.9
Brush and scrape cages (animals enclosed)							2.9
Shovel cages							2.9
Shovel paddocks							2.8
Rake paddocks							2.8
Flush moats							2.9
Sift and change sand in bird displays							2.8
Wash and disinfect bird cages							2.8
Change corn cobs							2.4
Flush, mop, and squeegee floors							2.6
Wash windows							2.6
Drain and clean aquatic areas							2.8
Drain and clean aquarium areas							2.9
Change pebbles in reptile cage							3.0
Shovel snow							2.3
Rake leaves							2.3
Clean gutters							2.3
Dust - sweep - wax - polish							2.6
Change light bulbs							2.8
Keep signs clean and up-to-date							2.5

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Following Safety Precautions							
Administer minor first-aid for cuts, bruises, burns, etc.	2.3	2.8	2.7	2.5		2.6	2.8
Follow safe work habits	2.8	2.9	3.0	3.0	2.7	2.6	3.0
Identify potential safety hazards	2.7	2.9	3.0	3.0	2.7	2.7	3.0
Store chemicals safely	2.3	2.7	2.7	2.3		2.7	
Use fire extinguishers	2.4	2.9	2.5	2.3	2.3	2.5	2.9
Wear appropriate protective clothing	2.5	2.6	2.5	2.3		2.8	2.9
Consider all zoo animals wild and dangerous							3.0
Secure all animals in cages							2.3
Learn zoo emergency procedures							3.0
Learn proper technique for manually lifting heavy loads							2.8
Enforce all safety rules applicable to the public							2.9
Enforce all safety rules applicable to animals							2.9
Teach safety to new keepers and students							2.9
Observe special precautions in reptile area							3.0
Observe safety habits in use of knives, grinding, etc.							2.9
Observe safety with power mowers and clippers							2.9
Store inflammable materials safety		2.7					
Ventilate work areas		2.5					
Interpret information on labels and signs		2.9					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Following Safety Precautions (cont.)							
Use proper lifting and carrying methods		2.6					
Wear appropriate work clothes		2.6					
Adjust safety devices		2.6					
Install safety devices		2.4					
Operate hand and power tools safely		2.8					
Correct potential fire and safety hazards		2.8					
Determine when climatic conditions provide unsafe work situations		2.6					
Remove debris from work area		2.8					
Maintain safe and clean work areas		2.8					
Maintain and use electrical cords and connections safely		2.8					
Interpreting Grooming Terminology							
Identify long haired breeds requiring little trimming				2.5			
Identify the Afghan Hound				2.5			
Identify the various terriers				2.8			
Identify the poodles				2.8			
Identify the Pekingese				2.6			
Identify the setters				2.6			
Identify the Golden Retriever				2.6			

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Interpreting Grooming Terminology (cont.)							
Identify the Cocker Spaniel				2.8			
Identify the various kinds of clip				3.0			
Ordering Tropical Fish							
Determine retail amounts of tropical fish ordered					2.5		
Inventory and order fish					2.5		
Determine number of tanks to be prepared for new fish orders					2.5		
Identify disease and bacteria found in fresh water aquariums					2.5		
Merchandising Fish							
Select and use appropriate gravel for types of fish to be displayed					2.9		
Use proper lighting for display fish					2.3		
Select proper background and ornaments for display fish					2.3		
Properly set up and display fish					2.3		
Display specialty fish properly					2.4		
Place fish in proper tanks					2.5		
Display top and bottom swimming fish appropriately					2.3		
Identify fish					2.5		

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Receiving and Handling Tropical Fish							
Acclimate newly received fish					2.5		
Unpack delicate fish					2.4		
Assist in Shipping and Receiving Animals							
Prepare transport cage							2.8
Capture animals							2.9
Load into truck							2.5
Transport to point of departure							2.4
Prepare receiving cage							2.8
Prepare quarantine area							2.8
Transport animals for public display							2.5
Maintaining Breeding Areas							
Change bedding in winter quarters							2.8
Clean bedding areas of debris							2.7
Convert display area to bathing area							2.5
Incubate eggs (bird and reptile)							2.8
Clean incubator and breeder							2.8
Separate new fish hatches from aggressive parents							2.8

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Maintaining Breeding Areas (cont.)							
Breeds birds							2.7
Drive Zoo Vehicles							
Obtain valid license							2.8
Drive van							2.5
Drive dump truck							2.4
Determine if fish transport and life support vehicles need repair							2.6
Obtaining Species							
Receiving donation							2.4
Assisting in Keeper Training							
Supervise new employees							2.8
Stress job safety							3.0
Demonstrate cage cleaning							2.8
Demonstrate feeding and watering							2.9
Demonstrate giving medication							2.6
Demonstrate restraint and grooming							2.8
Identify high risk areas							2.9

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Assist in Keeper Training (cont.)							
Demonstrate safety equipment							2.8
Demonstrate receiving and shipping of animals							2.6
Demonstrate building and ground maintenance							2.5
Review Union handbook							2.5
Performing Post Surgical Care							
Identify shock symptoms						2.7	
Maintain body heat						2.7	
Record abnormal behavior						2.8	
Performing Euthanasia Methods							
Identify method for specific species						2.7	
Perform euthanasia procedures						2.7	
Maintaining Equipment Vehicles							
Oversee proper and safe use and maintenance of equipment and vehicles		2.9					
Add coolant to radiators		2.9					
Add oil to equipment		2.8					
Adjust clutch free pedal travel on tractors		2.4					
Bleed diesel fuel system		2.3					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Maintaining Equipment and Vehicles (cont.)							
Change oil and oil filter		2.6					
Change thermostats		2.4					
Clean debris from equipment		2.6					
Grease equipment		2.7					
Inflate tires		2.7					
Inspect cooling system for leaks		2.4					
Install and adjust belts		2.4					
Install and service battery		2.5					
Interpret general maintenance directions in equipment operator's manual		2.6					
Remove equipment from storage		2.5					
Replace and adjust spark plugs		2.4					
Replace spark plug wires		2.4					
Prepare equipment for storage		2.6					
Oil equipment		2.6					
Operating Equipment and Vehicles							
Operate equipment and vehicles on public highways		2.9					
Interpret gauge readings on equipment		2.8					
Interpret safety symbols on equipment		2.9					
Adjust safety shields		2.8					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Operating Equipment and Vehicles (cont.)							
Identify potential hazards on equipment		2.9					
Refuel power units		3.0					
Connect hydraulic systems and equipment		2.7					
Connect 3-point hitch equipment		2.6					
Connect PTO shafts		2.6					
Hitch towed equipment		2.8					
Add wheel and front end weights		2.6					
Install equipment safety devices		2.7					
Correct potential equipment safety hazards		2.7					
Interpret safety and operating instructions in operator's manual		2.9					
Operate equipment under work conditions		2.9					
Use proper equipment and vehicles for specific jobs		2.8					
Oversee safe operation of equipment by horse farm hand		3.0					
Purchasing Supplies for Horse Farm Operation							
Determine when supplies need to be ordered		3.0					
Determine which supplies need to be ordered		3.0					
Determine quantity of supplies to be ordered		3.0					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Purchasing Supplies for Horse Farm Operation (cont.)							
Determine amount of supplies to keep on hand		2.9					
Assist in deciding when to order supplies		2.6					
Constructing and Maintaining Horse Buildings and Structures							
Determine what type of construction is most acceptable for horse farms		2.7					
Determine type and number of buildings to be constructed		2.7					
Determine type and number of fences to be constructed		2.9					
Determine internal fixtures for the building constructed		2.8					
Apply wood and metal preservatives		2.9					
Clean and oil electric motors		2.8					
Build and remove concrete forms		2.4					
Repair and hang gates and doors		2.9					
Lay block and brick		2.5					
Install electric motors		2.5					
Mix, pour, finish, and cure concrete		2.9					
Repair bracing in buildings		2.7					
Repair minor leaks in roof of buildings		2.8					
Repair electrical cords		2.7					
Reset circuit breakers		2.9					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Constructing and Maintaining Horse Buildings and Structures (cont.)							
Replace fuses		2.9					
Replace lighting fixtures and bulbs		2.7					
Repair faucets		2.6					
Replace water pipes		2.5					
Replace window panes		2.3					
Construct and repair fences and gates		2.9					
Repair wood siding on buildings		2.7					
Assembling and Installing Horse Operation Equipment							
Determine what equipment needs to be installed		2.9					
Check for missing items of equipment		2.8					
Interpret assembly diagrams		2.7					
Interpret assembly instructions		2.8					
Follow written assembly instructions		2.7					
Use proper equipment and tools to assemble and install equipment and structures		2.8					
Inspect assembled equipment for operational defects		2.4					
Install equipment and structures in proper places		2.6					
Adjust belts on equipment		2.7					
Adjust chains on equipment		2.6					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Assembling and Installing Horse Operation Equipment (cont.)							
Adjust controls on equipment		2.6					
Maintaining the Horse Herd Health							
Select appropriate chemical to clean horse buildings and equipment		3.0					
Identify symptoms of nutrient imbalance		2.9					
Evaluate influence diseases and parasites have on horse production		2.9					
Select appropriate methods to control internal and external parasites		2.9					
Work with a veterinarian in developing a horse herd health program		3.0					
Determine when pastures are rotated		2.9					
Determine when veterinarian should be called		3.0					
Evaluate life cycle of parasites to determine control procedures to follow		2.6					
Spray buildings with insecticide repellents		2.8					
Apply insecticide repellents to horses to control external parasites		2.9					
Supply medication through feed and water		2.9					
Isolate horses with transmittible diseases		2.9					
Interpret information contained on labels of medications and insecticides		3.0					
Take pulse and temperature		2.8					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Feeding Horses							
Determine which feeds may be fed		2.9					
Determine when feed mixtures should be changed for horses		2.7					
Determine nutrient requirements of horses		2.9					
Evaluate how ration imbalance may influence consumption of feed		2.7					
Determine amount of feed additives to feed horses		2.9					
Determine appropriate form in which feed should be fed horses if different ages		2.8					
Determine amount of feed to be fed		2.8					
Interpret information on feed tags		2.6					
Determine total amount of feed needed for horse herd		2.7					
Determine amount of weight mare or filly should gain during gestation		2.6					
Determine when horses may be started on grain		2.7					
Determine when horses may be turned out to pasture		2.7					
Determine cost of various feed mixes		3.0					
Classify feed		2.6					
Fill feed troughs and banks		3.0					
Fill waterers		3.0					
Provide more light feeds and water immediately after foaling		2.7					
Prepare feed mixtures		2.9					
Wean foals		2.8					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Feeding Horses (cont.)							
Fill mineral feeders or place salt and mineral blocks		2.7					
Dry up mare		2.8					
Feed orphan foals		2.9					
Identify moldy or spoiled feeds		3.0					
Feed foals under 6 months of age		2.9					
Feed yearlings or 2-year olds		2.8					
Feed gestating mare		2.8					
Feed lactating mare		2.8					
Feed stallion in heavy service		2.9					
Feed idle mature stallion		2.9					
Feed aged horse		2.9					
Work with veterinarian and horse owner in developing feeding program		2.4					
Loading and Shipping Horses							
Determine when horses are loaded		2.9					
Determine where horses should be shipped		2.8					
Load horses on carriers		2.8					
Sort horses according to size and weight for loading		2.3					
Determine the number of horses to load on carriers		2.5					
Prepare carriers for hauling		3.0					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Loading and Shipping Horses (cont.)							
Prepare horses for transport		2.8					
Hitch tractor		2.9					
Determine what horses are to be shipped		2.9					
Blanket horses for transport		2.3					
Selecting Horses							
Identify horses to be selected		2.9					
Select horses on individuality, pedigree, show ring winning, and/or performance		2.7					
Evaluate advantage of breeds		2.8					
Determine degree various traits are inherited		2.7					
Interpret pedigrees		2.7					
Determine age of horses to select		2.6					
Evaluate overall condition of horses to be selected		2.9					
Inspect animals for defects		2.9					
Determine number and sex of horses to be selected		2.9					
Identify parts of horses		3.0					
Breeding Horses							
Determine breeding system to be used		2.9					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Breeding Horses (cont.)							
Determine when to breed horses		2.9					
Determine when mares should be rebred after foaling		2.8					
Determine if mare has settled		2.7					
Determine number of mares a stallion may breed		2.7					
Determine when a stallion may be used for the first time		2.6					
Examine mare and stallion to determine when they are ready for breeding		2.4					
Evaluate factors which influence conception rate		2.5					
Wash reproductive organs of mare and stallion		2.9					
Bandage tail of mare		2.9					
Use twitch on mare		2.7					
Use hobbles on mare		2.6					
Determine due date for mares and fillies		2.3					
Hand mate horses		2.4					
Culling Horses							
Determine which horses are to be culled from the herd		2.9					
Identify reasons for culling horses		2.9					
Fitting and Showing Horses							
Determine how horses should be fitted for show		2.9					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Fitting and Showing Horses (cont.)							
Determine appropriate class of eligibility of horses		2.8					
Identify horses to be exhibited		2.9					
Fit animals for show		2.7					
Handling and Disposing of Animal Waste							
Determine how waste should be disposed of		2.9					
Determine where waste should be removed to		2.9					
Prevent runoff from horse barns and manure storage pits		2.8					
Remove dead animals		3.0					
Remove manure from horse pens and quarters		3.0					
Spread manure on fields		2.8					
Handling and Caring for Horses							
Determine when farmer should be called		2.9					
Inspect horses for thoroughness of grooming		2.9					
Groom horses		2.9					
Train horses to lead		2.9					
Train horses to lounge line		2.3					
Train horses to stand		2.5					
Train horses to follow commands		2.5					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Handling and Caring for Horses (cont.)							
Fit halters to horses		2.8					
Determine when colts may be castrated		2.4					
Determine when a horse is first ready to ride		2.9					
Evaluate influence of stress on growth and condition		2.7					
Determine when mare should be moved to feeding stall		2.8					
Determine stall and pasture space needed for horses		2.6					
Check for breed characteristics of horses		2.9					
Check for desirable characteristics and traits		2.9					
Train horses for halter		2.9					
Train horses for performance		2.8					
Assist mare in delivering foal when needed		2.8					
Check mare's milk supply		2.5					
Assist veterinarian in castrating		2.7					
Clean foal at birth		2.6					
Clip and disinfect foal's navel cord		2.4					
Exercise horses		3.0					
Assist foal in nursing		2.5					
Recognize signs of foaling		2.9					
Isolate newly purchased horses for observation		2.9					
Mark horses for identification		2.5					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Handling and Caring for Horses (cont.)							
Observe horses each day for signs of problems		2.9					
Remove afterbirth		2.7					
Trim fit		2.4					
Regulate temperature and environment in foaling quarters		2.4					
Clean mares before moving to foal quarters		2.4					
Place bedding in stalls and quarters		2.9					
Lime stalls and quarters		2.7					
Clean foaling stalls after delivery		2.7					
Give enema to foal		2.6					
Cool horses by walking/swimming		2.8					
Scrape prespiration from horses		2.3					
Wash and rinse horses		2.8					
Inspect for loose shoes and thrush		2.7					
Move horses to and from pasture		2.6					
Remove non-compatible horses from herd		2.5					
Handling and Caring for Tack							
Determine what type of tack should be used		2.9					
Determine what tack should be replaced or repaired		2.9					
Clean blankets		2.8					

TASK STATEMENTS	Animal Health Assistant	Stable Worker	Kennel Worker	Dog Groomer	Pet Shop	Laboratory Animal Assistant	Zoo Keeper
Handling and Caring for Tack (cont.)							
Clean tack		2.7					
Identify tack by proper name		2.7					
Store tack properly		2.8					
Clean tack with saddle soap		2.8					
Treat tack with Neats foot oil		2.7					
Replace or repair damaged tack		2.6					
Inspect tack for damage		2.6					

CONCLUSIONS

Conclusions were formulated on the data obtained from seven occupational surveys in the animal production and management taxonomy.

Conclusions follow:

1. The occupational survey approach to curriculum development provides a realistic base for developing an instructional program. The procedure used in conducting occupational surveys collects data concerning "what is."

2. Commonality and importance ratings of tasks may not always be directly related. Many important tasks required for specific occupations must be learned to succeed in those occupations but did not appear as tasks selected for the common core for the taxonomy.

RECOMMENDATIONS FOR FURTHER RESEARCH

1. Essential tasks in animal production and management should be used in developing occupational profiles for use in vocational counseling and guidance.

2. Task inventories should be used in cooperative vocational education programs in animal production and management in developing individual training plans for students.

3. Task inventories provide check lists which should be used in evaluating student learning in animal production and management programs.

4. The potential tasks in any occupational preparation program should be validated by a local advisory committee and adapted to the needs of the community.

5. The number of tasks which must be learned by students should be used to justify an animal production and management program with sufficient time allocated to develop competent graduates.

6. Instructors in vocational education in animal production and management at all levels should be task or skill oriented.

7. Findings of this study should provide a sound basis for development of competency-based instructional packages. The tasks should be developed as behavioral objectives with more specific skills taught as steps to meet the objectives.

8. The task inventory should be used as a resource in developing the technical animal production and management competencies needed for competency-based teacher education programs.

9. The task inventories should be used for self-evaluation by teachers to determine their inservice education needs.

10. Workshops on the use of task lists for curriculum improvement should be held which involves teacher educators, state supervisors, curriculum developers, and teachers.

11. Further research is needed to complete occupational surveys in occupations not examined in this study.

12. Evaluation of current national, state, and local curriculum guides should be conducted to ascertain whether tasks rated as essential in this study are being taught in vocational education programs in animal production and management.

13. Further research is needed to identify the leadership and personal development competencies needed in animal production and management occupations since these competencies were not identified in this study.

APPENDIX

Appendix 1

Special appreciation is expressed to the teachers in animal production and management who contributed to this study by developing and administering questionnaires in the seven animal production and management occupations surveyed. These individuals are:

Animal Health Assistant

Fred C. Cooke - former Graduate Research Associate in the Department of Agricultural Education

Stable Worker

Lucinda Berry Moore - Live Oaks Joint Vocational School
Steve Johnson - Montgomery County Joint Vocational School

Pet Shop

G. Scott Middleton - Westerville High School

Laboratory Animal Assistant

William Stanforth - Medina County Joint Vocational School

Zoo Keeper

Timothy Loeb - Toledo City Zoo

Dog Groomer

Robert Nehring - Montgomery County Joint Vocational School

Kennel Worker

Charles Montgomery - Live Oaks Joint Vocational School

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SUMMARY OF RESEARCH SERIES

Animal production and management, sometimes known as small animal care, has been rapidly developing as an instructional program in agricultural education. This development highlighted the need for vocational education curriculum in this area. Teachers of animal production and management assisted university personnel in conducting occupational surveys. Results of these surveys are reported herein. The results were also used to develop the Ohio Animal Production and Management Curriculum Guide.

Michael N. Hampson was a graduate research associate and J. David McCracken an associate professor, in the Department of Agricultural Education at The Ohio State University. Special appreciation is due Gary W. Leske, Associate Professor, University of Minnesota and James E. Cummins, Supervisor, Agricultural Education, Ohio Department of Education for their critical review of the manuscript prior to its acceptance for publication.

Research has been an important function of the Department of Agricultural Education since it was established in 1917. Research conducted by the Department has generally been in the form of graduate theses, staff studies, and funded research. It is the purpose of this series to make useful knowledge from such research available to practitioners in the profession.

J. Robert Warmbrod, Chairman
Department Research Committee

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